



8-15-05

09/517134 Cofe

Docket No.: 08228/000S080-US0  
(PATENT)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Letters Patent of:  
Debra L. Linker et al.

Patent No.: 6,901,378 *B1*

Issued: May 31, 2005

For: **METHOD AND SYSTEM FOR  
AUTOMATICALLY DISPLAYING AN  
IMAGE AND A PRODUCT IN A PAGE  
BASED ON CONTEXTUAL INTERACTION  
AND METADATA**

**Certificate  
AUG 18 2005  
of Correction**

**REQUEST FOR CERTIFICATE OF CORRECTION  
PURSUANT TO 37 CFR 1.322 AND CFR 1.323**

Attention: Certificate of Correction Branch  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Upon reviewing the above-identified patent, Patentee noted several errors which should be corrected.

The following errors were not in the application as filed by applicant:

In the Specification:

First Page Col. 2 (Abstract) Delete "The invention provides a method, system and computer-readable medium for storing images with related information in a relational database and using the information to order available products for a selected image over a network. Tag and business information may be associated with an image in the database and a unique image identifier is generated for each image. Different types of searches of the relational database may be performed including product based and image based. Affirmative results

from searches are returned as images and/or products that are displayed in pages. The returned images also include information indicating available products. The selection of a returned image causes a cut-down version of the image and all of the available products to be displayed in the same page. When an available product is selected, a server enables a transaction for a user to order the selected product. A Hyper Text Transport Protocol (HTTP) Cookie is employed to store a copy of a client identifier at a client. Information associated with the client's behavior for each session is stored in a profile that is used to customize the particular options and products that are displayed to the user. A combination of user information, product information, image information and contextual interaction information is used to determine the display of the images and the products.” and  
insert --

The invention provides a method, system, and computer-readable medium for storing images with related information in a relational database and using the information to order available products for a selected image over a network. A unique identifier is generated for each image, allowing different types of searches of the relational database to be performed including product-based and image-based searches. A selection of a returned image causes occurred-down version of the image and all available products to be displayed on a page. If a product is selected, a server enables a transaction for a user to order the selected product. A HTTP Cookie may be employed to store a user identifier, allowing use of user profiles for customization of particular options and displayed products. --.

Column 2-3, Line 61-67 of Col. 2 and 1-23 of Col. 3 Delete “In accordance with still.....shopping cart.” and insert the same on line 61 of Col. 2 as a new paragraph.

Column 3, Line 3, “selection of a” before “displayed”.

Column 6, Line 22, “(GEF)” and insert -- (GIF) --.

Column 8, Line 18, “After “poster” delete “,” and insert -- ; --.

Column 9, Line 64, “DOM” and insert -- DOMAIN --.

Column 9, Line 65, “<HEADER>” and insert -- </HEADER> --.

Column 11, Line 14, Insert -- In -- before “FIG. 15”.

Column 12, Line 59, Delete “inage” and insert -- image --.

Column 13, Line 55 (Approx.), In Claim 1, “if the” delete “when the”.

Column 14, Line 6, In Claim 3, after "including" insert -- at least one of --.

Column 14, Line 9, In Claim 4, after "including" insert -- at least one of --.

Enclosed please find copies of Amendments to the Specification, Amendments to the claims and Amendments to the Abstract.

The following errors were found in the application as filed by applicant. The errors now sought to be corrected are inadvertent typographical errors, the correction of which does not involve new matter or require reexamination.

FIG. 2 Sheet 2 of 14 (Block 120), Delete "WATEMARK" and insert

-- WATERMARK --.

FIG. 7B Sheet 7 of 14 (Block 176), Delete "STATIONARY" and insert

-- STATIONERY --.

FIG. 14A Sheet 7 of 14 (Block 176), Delete "IDENTIFYING" and insert

--IDENTIFYING --.

Column 12, Line 55, Delete "throughs" and insert -- through --.

Column 20, Line 19 (Approx.) In Claim 68, delete "far" and insert -- for --.

Transmitted herewith is a proposed Certificate of Correction effecting such amendment. Patentee respectfully solicits the granting of the requested Certificate of Correction.

The Commissioner is authorized to charge any deficiency of up to \$300.00 or credit any excess in this fee to Deposit Account No. 04-0100.

Dated: August , 2005

Respectfully submitted,

By   
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**UNITED STATES PATENT AND TRADEMARK OFFICE  
CERTIFICATE OF CORRECTION**Page 1 of 3PATENT NO. : 6,901,378 *B1*

APPLICATION NO. : 09/517,134

ISSUE DATE : May 31, 2005

INVENTOR(S) : Debra L. Linker et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

**In the Specification:**

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**UNITED STATES PATENT AND TRADEMARK OFFICE  
CERTIFICATE OF CORRECTION**

Page 2 of 3

PATENT NO. : 6,901,378 B1  
APPLICATION NO. : 09/517,134  
ISSUE DATE : May 31, 2005  
INVENTOR(S) : Debra L. Linker et al.

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and insert

-- The invention provides a method, system, and computer-readable medium for storing images with related information in a relational database and using the information to order available products for a selected image over a network. A unique identifier is generated for each image, allowing different types of searches of the relational database to be performed including product-based and image-based searches. A selection of a returned image causes occurred-down version of the image and all available products to be displayed on a page. If a product is selected, a server enables a transaction for a user to order the selected product. A HTTP Cookie may be employed to store a user identifier, allowing use of user profiles for customization of particular options and displayed products. --.

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**Column 11, Line 14, Insert -- In -- before “FIG. 15”.**

**Column 12, Line 59, Delete “image” and insert -- image--.**

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Page 3 of 3

**Column 12, Line 55, Delete “throughs” and insert – through –.**

**Column 13, Line 55 (Approx.) In Claim 1, after “if the” delete “when the”.**

**Column, 13, Line 56 (Approx.) In Claim 1, delete “abailable” and insert -- available --.**

**Column 14, Line 6, In Claim 3, after “including” insert – at least one of –.**

**Column 14, Line 9, In Claim 4, after “including” insert -- at least one of –.**

**Column 20, Line 19 (Approx.) In Claim 68, delete “far” and insert -- for --.**

**FIG. 2 Sheet 2 of 14 (Block 120), Delete “WATEMARK” and insert  
-- WATERMARK --.**

**FIG. 7B Sheet 7 of 14 (Block 176), Delete “STATIONARY” and insert  
-- STATIONERY --.**

**FIG. 14A Sheet 7 of 14 (Block 176), Delete “IDENTIFYING” and insert  
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### AMENDMENTS TO THE SPECIFICATION

Please substitute the following paragraph with the paragraph beginning on line 5 of page 4 in the currently filed specification:

In accordance with other additional aspects of the invention, an agent program can be used to automatically determine the image and available products to be displayed. In accordance with still other additional aspects of the invention, a method is provided for using contextual interaction information to enable a product associated with an image to be ordered over a network. A search can be entered in a point of entry page, which is employed to search a database that includes a plurality of images. The result of the search is displayed in a result page. An affirmative result causes at least one image related to the search to be displayed in the result page. In response to a selection of a displayed image in the result page, a product page that includes the representation of each available product for the selected image is displayed. The different types of available products include picture, electronic postcard, poster, screen saver, wallpaper, calendar, ~~stationary~~ stationery, invitation, presentation, slideshow, puzzle and cup. In response to a selection of the representation of the available product in the product page, a create page that includes a representation for each option associated with the selected product is displayed. The options for the selected product include at least one template, and the type of use such as single, free and subscription. In response to a selection of the representation of an option associated with the selected product, a transaction page that includes each option for a transaction to order the selected product is displayed. Also, in response to the selection of the subscription type of use, a subscription page that includes each option for selecting a subscription membership is displayed such as individual, business and institutional. Additionally, options for the transaction to obtain the selected product include send, print, purchase and add to virtual shopping cart.

**AMENDMENTS TO THE CLAIMS**

1. (Amended) A method for enabling a product associated with an image to be provided to a user, comprising:
  - (a) employing the context of an interaction to determine the image to be displayed, the image being displayed and being associated with information indicating each product that is available for use with the image, wherein each product is available to display a representation of the image;
  - (b) automatically employing the information associated with the image to generate a representation of each product that is available for use with the image;
  - (c) automatically displaying the image and the representation of each product that is available for use with the image in a page; and
  - (d) ~~when if~~ the representation of an available product is selected, enabling the available product for use with the image to be provided.
2. (Original) The method of Claim 1, wherein the image is stored in a database.
3. (Amended) The method of Claim 2, wherein the image is formatted and stored in the database as a picture, the format including at least one of JPEG, GIF, TIFF, and PIC.
4. (Amended) The method of Claim 2, wherein the image is formatted and stored in the database as a movie, the format including at least one of MPEG, QTM, and AVI.
5. (Original) The method of Claim 2, wherein the database is a relational database.
6. (Original) The method of Claim 2, wherein the database is an object oriented database.
7. (Original) The method of Claim 1, wherein the information associated with the image is stored in a file that includes image data.
8. (Amended) The method of Claim 7, further comprising employing a facility to create an IPTC format for associated information that is included in the file that includes image data.

**AMENDMENTS TO THE ABSTRACT**

Please substitute the following paragraph for the Abstract now appearing in the currently filed specification:

The invention provides a method, system, and computer-readable medium for storing images with related information in a relational database and using the information to order available products for a selected image over a network. A unique identifier is generated for each image, allowing different types of searches of the relational database to be performed including product-based and image-based searches. A selection of a returned image causes a cut-down version of the image and all available products to be displayed on a page. If a product is selected, a server enables a transaction for a user to order the selected product. A HTTP Cookie may be employed to store a user identifier, allowing use of user profiles for customization of particular options and displayed products.



and graphic. The sound data can have any one of several formats, including WAV and MP3.

In accordance with other additional aspects of the invention, an agent program can be used to automatically determine the image and available products to be displayed.

5        In accordance with still other additional aspects of the invention, a method is provided for using contextual interaction information to enable a product associated with an image to be ordered over a network. A search can be entered in a point of entry page, which is employed to search a database that includes a plurality of images. The result of the search is displayed in a result page. An affirmative result causes at least one image  
10      related to the search to be displayed in the result page. In response to a selection of a displayed image in the result page, a product page that includes the representation of each available product for the selected image is displayed. The different types of available products include picture, electronic postcard, poster, screen saver, wallpaper, calendar, stationary, invitation, presentation, slideshow, puzzle and cup. In response to a  
15      selection of the representation of the available product in the product page, a create page that includes a representation for each option associated with the selected product is displayed. The options for the selected product include at least one template, and the type of use such as single, free and subscription. In response to a selection of the representation of an option associated with the selected product, a transaction page that  
20      includes each option for a transaction to order the selected product is displayed. Also, in response to the selection of the subscription type of use, a subscription page that includes each option for selecting a subscription membership is displayed such as individual, business and institutional. Additionally, options for the transaction to obtain the selected product include send, print, purchase and add to virtual shopping cart.

25      In accordance with additional aspects of the invention, the search of the database may be subject based and in another embodiment, the search can be product based. For a product based search, options associated with an available product is displayed in another page.

facility such as provided by the DIGIMARC CORPORATION may be used to create the invisible digital watermark for a cut-down image. The logic advances to a block 120 where a facility compresses each cut-down image that includes an invisible digital watermark and creates a corresponding JPEG image. Optionally, the invention may 5 create a corresponding image in any one of a plurality of different image formats, including graphics interchange format (GIF), tag image file format (TIFF) and pictor (PIC).

The logic flows to a block 122 where a facility creates visible digital watermarks that are added to each JPEG image. The logic steps to a block 124 where the JPEG 10 image is associated with a corresponding image ID entry in the database. The logic moves to a block 126 where SQL attributes are created and associated with the image ID entry. The SQL attributes correspond to scripts that enable particular functions for a JPEG image associated with a particular image ID entry. For example, these scripts 15 could enable the functionality for sending, printing, and viewing a JPEG image associated with SQL attributes. Also, the scripts could enable the functionality for generating an electronic postcard, purchasing a poster, limiting the syndicated use of a JPEG image and controlling the location for displaying the JPEG image. In one embodiment, the SQL attributes are automatically generated by a facility based on the tag data and business data associated with the image ID entry. In another embodiment, 20 the SQL attributes are manually created and associated with the image ID entry. Next, the logic moves to an exit block and terminates.

In FIGURE 3, an overview 128 shows the logical actions for employing a facility to add information in an International Press and Telecommunications Council (IPTC) format to a JPEG image associated with an image ID entry in a database. The IPTC 25 format provides a hierarchical structure for information that is added to a file containing the JPEG image.

The logic moves from a start block to a block 130 where a facility is employed to provide an invisible digital watermark for each cut-down image. The logic advances to a

The actual cost of the related product for a selected image would be influenced by the configuration of the image within the product template. For example, small image resolutions might be given away for free with some products such as thumbnail image with 150 by 150 lines of resolution. Alternatively, larger image resolutions, e.g., 5 640 by 480 lines of resolution and above, would cause a related product such as a screen saver to cost \$5.00 or more.

Returning to FIGURE 5, the logic steps from the block 155 to a block 156 where in response to the selection of a button in the create page, the cut-down JPEG image 198 and several transaction options are displayed in a transaction page. FIGURE 9 illustrates 10 an exemplary transaction page 182 with descriptive text 186 and several transaction options that are represented by graphical buttons. These buttons include (1) an add button 188 for adding the selected product to a virtual shopping cart for later purchase; (2) a purchase button 190 for enabling the purchase of the selected product; (3) a print button for printing the selected product such as a calendar or poster; and (4) a send 15 button for enabling the selected product to be sent to another user.

In FIGURE 5, the logic moves from the block 156 to a block 158 where in response to the selection of a graphical button in the transaction page, the particular transaction option associated with the selected button is performed. For example, when the purchase button is selected, a transaction is initiated with an electronic commerce 20 server to facilitate the purchase of the selected product. Next, the logic steps to an exit block and terminates.

Optionally, it is envisioned that a subscriber page could be displayed for enabling 25 a user to subscribe to a service that enables various types of uses for selected images and products. In FIGURE 13, an exemplary subscriber page 228 illustrates text 230 and graphical buttons. The text 230 may be used to describe the benefits of subscription. The graphical buttons include: (1) an individual subscription button; (2) a business subscription button; and (3) an institutional (educational/non-profit organization) subscription. Although not shown, when a user's subscription has expired, the invention

The Cookie mechanism provides a powerful tool that enables different types of application programs to be written for Internet-based environments. For example, a service program could use a Cookie to send back registration information and free the client from retyping a user identification number for each connection to the service.

5 Also, an Internet site could store user preferences for a client and have the client supply those preferences each time that the client connected to the site.

Generally, a Cookie is introduced to the client by including information with a Set-Cookie command in a header as part of an HTTP response. An example of the Set-Cookie command included in an HTTP response header is listed below.

10        *<HEADER>*  
          *Set-Cookie: NAME = VALUE; expires = DATE;*  
          *path=PATH; domain = DOMAIN\_NAME; secure*  
          *</HEADER>*

When a client's browser program is requesting resources at a particular URL address from an HTTP server on the Internet, the browser will match the requested URL against all of the URLs stored in the client's Cookies. If the requested URL matches any of the stored URLs, a line containing the name/value pairs of all matching Cookies will be included in the HTTP request. An exemplary line in a Cookie for an HTTP request could be included as follows: *Cookie: NAME1 = OPAQUE\_STRING1; NAME2 = OPAQUE\_STRING2.*

A Cookie is typically used to save the state of a relationship between a client and a server with a unique client identifier. However, in some cases, the saved state of the relationship or Cookie may be deleted by the client and/or not persistently stored. For example, the client may employ a Cookie management program that automatically 25 deletes stored Cookies after each client-server session or does not allow a server to provide a Cookie to the client. Unfortunately, if the client does not have a previously stored Cookie when it makes repeated HTTP requests of a server, the server may not initially recognize that a repeat client is participating in the current session.

In FIGURE 14A, an exemplary HTTP request 238 with a Cookie that includes a permanent client identifier is shown. FIGURE 14B illustrates an exemplary HTTP request 240 without a Cookie identifying the client. FIGURE 14C shows an exemplary HTTP response 242 with a Cookie that includes a temporary client identifier. FIGURE 5 14D illustrates an exemplary HTTP response 244 with a Cookie that includes a permanent client identifier.

It is envisioned that other methods may be employed to provide a persistent identifier for a client. Querystring parameters are another means of persisting a client's identity cross many pages. For example, when a dynamic link is selected on a first page, 10 this page could read in a client's identifier and append the identifier to a query string for the URL in the link. A following page would be able to read the URL's appended name-value pair (client identifier) for determining the client's identity.

Additionally, it is envisioned that a client-side application program could be downloaded from a server that would work in conjunction with a browsing facility. This 15 client-side application program could send the client's identifier to a server as necessary to persistently identify the client.

#### System Overview

In FIGURE 15, an overview 300 illustrates an exemplary system for acquiring and storing a digitized image and enabling the functionality of a selected image. At a 20 data center 316, a source server 302 can be employed to digitize an original image and store a copy of the digitized image as binary data. As discussed in greater detail above, JPEG images are created and stored in at least one relational database (not shown) which can be accessed by an operational server 304. Although not shown at the data center 316, a facility may be provided for removing artifacts that degrade the quality of an 25 image generated from the binary image data. It is envisioned that at least a portion of the artifact removal process could be performed automatically. The raw binary image data is stored in a data warehouse server 306 that may be local or (optionally) remotely located from the data center 316.

The engine 402 employs the different types of data provided by the image object 404, product object 406, user object 408 and context object 410 to perform a rules based (artificial intelligence) analysis for determining which images and related products will be displayed in a page. In this way, the invention enables a customized display of 5 images and related products to be provided for each user.

In FIGURE 18, a flow chart 412 illustrates a logical overview for analyzing which images and related products will be displayed in a page to a user. Moving from a start block, the logic advances to a block 414 where the contextual interaction of a user with the invention is analyzed, such as type of viewing program, hierarchical position of 10 a user in a web site, search criteria, browsing results and hyperlinked click throughs. The logic steps to a block 416 where the logic determines the particular attributes of the current user, including rights, behavior, preferences and subscription status of the user. Advancing to a block 418, the logic determines the image attributes of the selected 15 image, including properties, usage rights and special related products. The logic flows to a block 420 where the logic determines the attributes of the selected product that is related to the selected image. For example, the logic determines the properties and options for the selected product. Moving forward, the logic advances to a block 422 where the logic employs artificial intelligence (rules based analysis) to generate a display of the images and related products. Also, the logic can employ the category of the image 20 and the actual use of the image to generate a display of the images and products. Next, the logic steps to an exit block and the logic flow terminates.

In another embodiment, an agent program (not shown) may be employed to automatically search a relational database to select an image and/or procure a related product in accordance with a user request. The agent program may be associated with an 25 electronic appliance/device that enables the program to select an image and/or product from any one of multiple relational databases on a network. The user can employ the agent program to automatically choose an image and/or product based on different criteria including theme, category, context and subject. The agent program may be



Application No. (if known): 09/517,134

Attorney Docket No.: 08228/000S080-US0

## Certificate of Express Mailing Under 37 CFR 1.10

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